STN Columbus

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* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1           Web Page for STN Seminar Schedule - N. America
 NEWS  2  MAY 01   New CAS web site launched
 NEWS  3  MAY 08   CA/CAplus Indian patent publication number format defined
 NEWS  4  MAY 14   RDISCLOSURE on STN Easy enhanced with new search and display
                   fields
 NEWS  5  MAY 21   BIOSIS reloaded and enhanced with archival data
 NEWS  6  MAY 21   TOXCENTER enhanced with BIOSIS reload
 NEWS  7  MAY 21   CA/CAplus enhanced with additional kind codes for German
                   patents
 NEWS  8  MAY 22   CA/CAplus enhanced with IPC reclassification in Japanese
                   patents
 NEWS  9  JUN 27   CA/CAplus enhanced with pre-1967 CAS Registry Numbers
 NEWS 10  JUN 29   STN Viewer now available
 NEWS 11  JUN 29   STN Express, Version 8.2, now available
 NEWS 12  JUL 02   LEMBASE coverage updated
 NEWS 13  JUL 02   LMEDLINE coverage updated
 NEWS 14  JUL 02   SCISEARCH enhanced with complete author names
 NEWS 15  JUL 02   CHEMCATS accession numbers revised
 NEWS 16  JUL 02   CA/CAplus enhanced with utility model patents from China
 NEWS 17  JUL 16   CAplus enhanced with French and German abstracts
 NEWS 18  JUL 18   CA/CAplus patent coverage enhanced
 NEWS 19  JUL 26   USPATFULL/USPAT2 enhanced with IPC reclassification
 NEWS 20  JUL 30   USGENE now available on STN
 NEWS 21  AUG 06   CAS REGISTRY enhanced with new experimental property tags
 NEWS 22  AUG 06   BEILSTEIN updated with new compounds
 NEWS 23  AUG 06   FSTA enhanced with new thesaurus edition
 NEWS 24  AUG 13   CA/CAplus enhanced with additional kind codes for granted
                   patents

 NEWS EXPRESS  29 JUNE 2007:  CURRENT WINDOWS VERSION IS V8.2,
               CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 05 JULY 2007.

 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.

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* * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 22:49:18 ON 19 AUG 2007

=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'REGISTRY' ENTERED AT 22:49:40 ON 19 AUG 2007
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Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES:   17 AUG 2007  HIGHEST RN 944994-02-9
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DICTIONARY FILE UPDATES: 17 AUG 2007 HIGHEST RN 944994-02-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

```
=> e metformin/cn
E1            1     METFOL-B/CN
E2            1     METFORAL/CN
E3            1 --> METFORMIN/CN
E4            1     METFORMIN CLOFIBRATE/CN
E5            1     METFORMIN HYDROCHLORIDE/CN
E6            1     METFORMIN OROTATE/CN
E7            1     METFORMIN PAMOATE/CN
E8            1     METFORMIN TOLBUTAMIDE SALT/CN
E9            1     METFORMIN-GLIPIZIDE MIXT./CN
E10           1     METFOSFAN/CN
E11           1     METFPROTEIN (SILICIBACTER POMEROYI STRAIN DSS-3)/CN
E12           1     METG (METHANOSPHAERA STADTMANAE STRAIN DSM 3091 GENE METG)/C
                    N

=> s e3
L1            1 METFORMIN/CN

=> d

L1   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   657-24-9  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   Imidodicarbonimidic diamide, N,N-dimethyl-  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Biguanide, 1,1-dimethyl- (6CI, 8CI)
OTHER NAMES:
CN   1,1-Dimethylbiguanide
CN   Dimethylbiguanide
CN   DMGG
CN   Ficonax
CN   Fluamine
CN   Flumamine
CN   Gliguanid
CN   Haurymelin
CN   Melbin
CN   Metformin
CN   Metiguanide
CN   Metphage
CN   N'-Dimethylguanylguanidine
CN   N,N-Dimethyl-imidodicarbonimidic diamide
CN   N,N-Dimethylbiguanide
CN   N,N-Dimethyldiguanide
CN   N1,N1-Dimethylbiguanide
CN   NNDG
CN   Siofor
MF   C4 H11 N5
CI   COM
LC   STN Files:   ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS,
       BIOTECHNO, CA, CABA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS,
       CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, EMBASE, GMELIN*,
       HSDB*, IFICDB, IFIPAT, IFIUDB, IMSCOSEARCH, IMSDRUGNEWS, IMSPATENTS,
       IMSRESEARCH, IPA, MEDLINE, MRCK*, PATDPASPC, PHAR, PROMT, PROUSDDR, PS,
       RTECS*, SCISEARCH, SPECINFO, SYNTHLINE, TOXCENTER, USAN, USPAT2,
       USPATFULL
         (*File contains numerically searchable property data)
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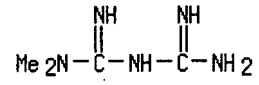
Other Sources: EINECS**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2712 REFERENCES IN FILE CA (1907 TO DATE)
50 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2722 REFERENCES IN FILE CAPLUS (1907 TO DATE)
19 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

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=> s glyburide/cn
L2             1 GLYBURIDE/CN

=> d

L2   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   10238-21-8  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   Benzamide, 5-chloro-N-[2-[4-[[[(cyclohexylamino)carbonyl]amino]sulfonyl]ph
     enyl]ethyl]-2-methoxy-  (CA INDEX NAME)
OTHER NAMES:
CN   1-[4-[2-(5-Chloro-2-methoxybenzamido)ethyl]phenylsulfonyl]-3-
     cyclohexylurea
CN   1-[p-2-(5-Chloro-o-anisamido)ethylphenylsulfonyl]-3-cyclohexylurea
CN   1-[[-p-[2-(5-Chloro-o-anisamido)ethyl]phenyl]sulfonyl]-3-cyclohexylurea
CN   Abbenclamide
CN   Adiab
CN   Antibet
CN   Apo-Glibenclamide
CN   Azuglucon
CN   Bastiverit
CN   Benclamin
CN   Betanase
CN   Betanaz
CN   Betanese 5
CN   Calabren
CN   Cytagon
CN   Daonil
CN   Daonil N
CN   Debtan
CN   Dia-basan
CN   Diaben
CN   Diabeta
CN   Diabiphage
CN   Dibelet
CN   Duraglucon
CN   Euglucan
CN   Euglucon
CN   Euglucon 5
CN   Euglykon
CN   GBN 5
CN   Gilemal
CN   Gl
CN   Glamide
CN   Gliban
CN   Gliben
CN   Gliben-Puren N
CN   Glibenclamide
CN   Glibenil
CN   Glibens
CN   Glibesyn
CN   Glibet
CN   Glibetic
CN   Glibil
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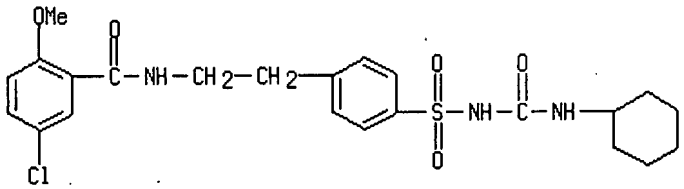
CN Gliboral
CN Glicem
CN Glidiabet
CN Glimel
CN Glimide
CN Glimidstada
CN Glisulin
CN Glitisol
CN **Glyburide**
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
MF C23 H28 Cl N3 O5 S
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CABA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IMSCOSEARCH, IMSPATENTS, IPA, MEDLINE, MRCK*, PIRA, PROMT, PS, RTECS*, SCISEARCH, SPECINFO, TOXCENTER, USAN, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3575 REFERENCES IN FILE CA (1907 TO DATE)
34 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
3584 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file merck
COST IN U.S. DOLLARS SINCE FILE ENTRY 14.25 TOTAL SESSION 14.46

FULL ESTIMATED COST

FILE 'MRCK' ENTERED AT 22:50:31 ON 19 AUG 2007

FILE COVERS FROM LATE 19TH CENTURY TO PRESENT. LAST UPDATE: OCTOBER 2005

THE MERCK INDEX ONLINE is a service mark of Merck & Co., Inc., Whitehouse Station, NJ, USA and is registered in the United States Patent and Trademark Office.

=> d his

(FILE 'HOME' ENTERED AT 22:49:18 ON 19 AUG 2007)

FILE 'REGISTRY' ENTERED AT 22:49:40 ON 19 AUG 2007
E METFORMIN/CN
L1 1 S E3
L2 1 S GLYBURIDE/CN

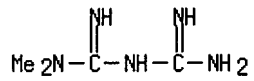
FILE 'MRCK' ENTERED AT 22:50:31 ON 19 AUG 2007

=> s l1
L3 1 L1

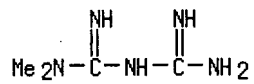
=> d all

L3 ANSWER 1 OF 1 MRCK

MERCK Number (MNO): 5963
CAS Registry No. (RN): **657-24-9**
MERCK Index Name (MIN): Metformin
CA Index Name (CN): N,N-Dimethylimidodicarbonimidic diamide
Synonym(s) (CN): 1,1-dimethylbiguanide; N,N-dimethyldiguanide; N'-dimethylguanylguanidine; DMGG
Drug Code(s) (CN): LA-6023
Molecular Form. (MF): C4 H11 N5
Wgt Composition (COMP): C 37.20%, H 8.58%, N 54.22%.
Molecular Weight (MW): 129.16
References (RE): Oral hypoglycemic agent. Prepn: Werner, Bell, J. Chem. Soc. 121, 1790 (1922); Shapiro et al., J. Am. Chem. Soc. 81, 3728 (1959). Use as antidiabetic: J. J. Sterne, US 3174901 (1965 to Jan Marcel Didier Aron-Samuel). Toxicity: Rx Bulletin 3, 25 (1972). Determn in plasma: S. AbuRuz et al., J. Chromatogr. B 798, 203 (2003). Clinical pharmacokinetics: G. T. Tucker et al., Br. J. Clin. Pharmacol. 12, 235 (1981). Review of pharmacology: L. S. Hermann, Diabete Metab. 5, 233-245 (1979). Metabolic effects and mechanism of action study: M. Stumvoll et al., N. Engl. J. Med. 333, 550 (1995). Review of efficacy in polycystic ovary syndrome: J. M. Lord et al., Br. Med. J. 327, 951-955 (2003); in type 2 diabetes mellitus: S. M. Setter et al., Clin. Ther. 25, 2991-3026 (2003).



== DERIVATIVE == (1): Hydrochloride
CAS Registry No. (RN.DRV): 1115-70-4
Trade Name(s) (CN.DRV): Debeone (Armstrong); Diabex (Merck KGaA); Glucophage (Merck KGaA); Metiguanide (Novo)
Molecular Form. (MF.DRV): C4 H11 N5 . Cl H
Wgt Composition (COMP.DRV): C 29.01%, H 7.30%, N 42.29%, Cl 21.41%.
Molecular Weight (MW.DRV): 165.62



HCl

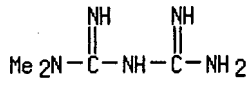
Melting Point (MP.DRV):

Deriv. Number	Derivative Type	Value MP.DRV deg C	Note
1	Hydrochloride	232	(Werner, Bell)
		218 - 220	(uncorr) (Shapiro)

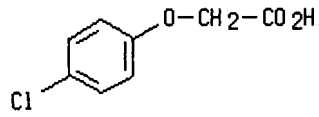
Toxicity (TOX.DRV):
LD50 in rats (mg/kg): 1000 orally, 300 s.c. (Rx Bulletin).
Other Properties (OCPP.DRV):
Prisms from water, mp 232° (Werner, Bell) ; crystals from propanol, mp 218-220° (uncorr) (Shapiro) . Sol in water, 95% alcohol. Practically insol in ether, chloroform. LD50 in rats (mg/kg): 1000 orally , 300 s.c. (Rx Bulletin) .

== DERIVATIVE == (2): p-Chlorophenoxyacetate (salt)
CAS Registry No. (RN.DRV): 25672-33-7
Trade Name(s) (CN.DRV): Glucinan (Merck KGaA)
Molecular Form. (MF.DRV): C4 H11 N5 . C8 H7 Cl O3
Wgt Composition (COMP.DRV): C 45.64%, H 5.75%, N 22.18%, Cl 11.23%, O 15.20%.
Molecular Weight (MW.DRV): 315.76

CM 1

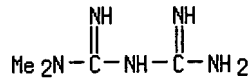


CM 2

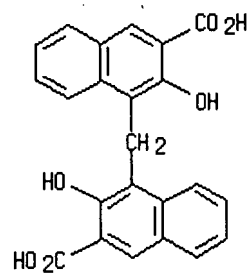


== DERIVATIVE == (3): Embonate
CAS Registry No. (RN.DRV): 34461-22-8
Synonym(s) (CN.DRV): Metformin pamoate
Trade Name(s) (CN.DRV): Stagid (Merck KGaA)
Molecular Form. (MF.DRV): (C4 H11 N5)2 . C23 H16 O6
Wgt Composition (COMP.DRV): C 57.57%, H 5.92%, N 21.66%, O 14.84%.
Molecular Weight (MW.DRV): 646.70

CM 1



CM 2



Therapeutic Codes (THER):
Antidiabetic. In treatment of polycystic ovary syndrome.
Referenced Patent (RPN):
US3174901

=> s l2
L4 1 L2

=> d all

L4 ANSWER 1 OF 1 MRCK COPYRIGHT (C) 2007 Merck and Co., Inc., Whitehouse Station, New Jersey, USA. All rights reserved. on STN
MERCK Number (MNO): 4491
CAS Registry No. (RN): **10238-21-8**
MERCK Index Name (MIN): Glyburide
CA Index Name (CN): 5-Chloro-N-[2-[4-[[[(cyclohexylamino)carbonyl]amino]sulfonyl]phenyl]ethyl]-2-methoxybenzamide
Synonym(s) (CN): 1-[[p-[2-(5-chloro-o-anisamido)ethyl]phenyl]sulfonyl]-3-cyclohexylurea; N-[4-(β-(2-methoxy-5-chlorobenzamido)ethyl)benzosulfonyl]-N'-cyclohexylurea; N1-[4-[β-(2-methoxy-5-

chlorobenzoylamino)ethyl]benzenesulfonyl]-N2-cyclohexylurea; Glybenzcyclamide; Glibenclamide

Drug Code(s) (CN): HB-419; U-26452

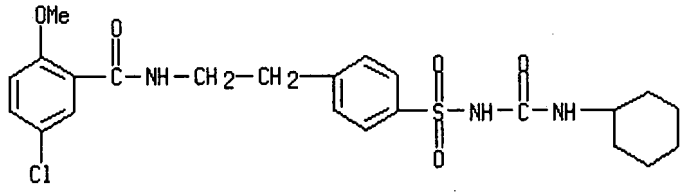
Trade Name(s) (CN): Azuglucon (Azupharma); Bastiverit (Bastian-Werk); Diabasan (Biofarma); Diabeta (Sanofi-Aventis); Daonil (Sanofi-Aventis); Duraglucon (Dura); Euglucon (Sanofi-Aventis); Gilemal (Chinoin); Glimidstada (Stada); Glycolande (Sanofi-Synthelabo); Libanil (Approved Prescrip.); Maninil (Berlin-Chemie); Micronase (Pharmacia & Upjohn); Praeciglucon (Pfleger)

Molecular Form. (MF): C23 H28 Cl N3 O5 S

Wgt Composition (COMP): C 55.92%, H 5.71%, Cl 7.18%, N 8.51%, O 16.19%, S 6.49%.

Molecular Weight (MW): 494.00

References (RE): Second generation sulfonylurea with hypoglycemic activity. Prepn: Aumuller et al., Arzneim.-Forsch. 16, 1640 (1966); NL 6603398 (1966 to Boehringer, Mann.), C.A. 66, 65289h (1967); NL 6610580; H. Weber et al., US 3454635 (1967, 1969 both to Hoechst). Pharmacology: Loubatieres, Mariani, C.R. Seances Acad. Sci. Ser. D 265, 643 (1967). Toxicity: Mizukami et al., Arzneim.-Forsch. 19, 1413 (1969). Series of articles on synthesis, pharmacology, toxicology and clinical studies: ibid. 1323-1494. Effect on release of insulin, glucagon and somatostatin: S. Efendic et al., Proc. Natl. Acad. Sci. USA 76, 5901 (1979). Symposium on pharmacology, mechanism of action and clinical trials: Ann. Clin. Res. 15, Suppl. 37, 1-35 (1983). Comprehensive description: P. G. Takla, Anal. Profiles Drug Subs. 10, 337-355 (1981). Review of pharmacology and clinical efficacy: J. M. Feldman, Pharmacotherapy 5, 43-62 (1985).



Melting Point (MP):

Value MP deg C	Note
169 - 170	(Weber)
172 - 174	(Aumueller)

Toxicity (TOX):
LD50 in rats and mice (g/kg): >20 orally; >12.5 i.p.; >20 s.c. (Mizukami).

Other Properties (OCPP):
Crystals from methanol, mp 169-170° (Weber) ; also reported as mp 172-174° (Aumueller) . pKa 5.3. Sparingly sol in water, sol in the usual organic solvents. LD50 in rats and mice (g/kg): > 20 orally ; > 12.5 i.p. ; > 20 s.c. (Mizukami) .

Therapeutic Codes (THER):
Antidiabetic.

Other Sources (OS):
CA 66:65289

Referenced Patent (RPN):
NL6603398; NL6610580; US3454635

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	5.70	20.16

STN INTERNATIONAL LOGOFF AT 22:52:01 ON 19 AUG 2007